

ABSTRACT OF THE DISCLOSURE

The adhesion properties of a metal interconnect structure are enhanced by selectively depositing a barrier layer component having good adhesion to an underlying metal on the bottom surface of a via. Then, a further barrier layer having superior adhesion characteristics for the dielectric is formed on the dielectric sidewalls of the via, so that excellent adhesion to the dielectric and the underlying metal is achieved. The selectivity of the deposition may be accomplished by exploiting the capabilities of modern IPVD tools.

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